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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,454	07/30/2003	Paul J. Holmquist	279.B25US1	9029

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EXAMINER	
FLORY, CHRISTOPHER A	
ART UNIT	**PAPER NUMBER**
3762	

MAIL DATE	DELIVERY MODE
09/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/630,454	HOLMQUIST ET AL.	
	Examiner	Art Unit	
	Christopher A. Flory	3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 3-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 3-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 June 2007 has been entered.

Claim Rejections - 35 USC § 103

2. Claims 1, 3-5, 13-18, 23-28 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel et al. (U.S. 2002/0049480, hereinafter Lebel'480) in view of Webb et al. (US 6,699,187, hereinafter Webb'187).

In regards to claims 1, 15 and 25, Lebel'480 discloses a system and method of wirelessly exchanging data by radio frequency telemetry or inductive links (see for examples paragraphs 155 and 420) with an implantable electrical stimulation device (see paragraph 432). Examiner further interprets the implantable device as capable of executing at least one application program that provides data to be exchanged and executing a set of information exchange instructions on the data (see for example paragraph 298). Examiner also takes the position the system as taught by Lebel'480 inherently discloses dividing the data into packets (see for example paragraph 298), in which each packet comprises a preamble, frame sync, telemetry identifier and data

which Examiner interprets each component to broadly the meet the limitation of header data (see for examples paragraphs 301, 304, 306, 308 and 309) as Lebel'480 discloses that the preamble is capable of providing assistance to an external device in deciphering data(see for example paragraph 301).

Further regarding claims 1, 15, 25, Lebel'480 is considered to disclose the invention substantially as claimed, but does not expressly disclose analyzing the transport control information of the header data of each received packet to determine the position of data from the packet within the data from other packets being reconstructed. In the same field of endeavor, Webb'187 teaches communication stacks used to create packets containing header information identifying the source and type of data being transferred (column 8, lines 6-10), and that the header section includes a bit corresponding to each of the regions in a display window set to include changed data so that a transferred packet contains regions indicated as associated with changed data or not (column 10, lines 27-57 and 63-67; column 15, lines 30-50). This teaching is considered synonymous to that which is claimed in the instant application, since Webb'187 is teaching a header with bits dedicated to the specific display position of data in the packet being transferred, and further the size and type of data included in a specific packet. As such data in the Webb'187 system can be determined to be of a specific position within a specific packet when transmitted within data from other packets being reconstructed. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 with the positional header packet information method as taught by Webb'187 to provide

the Lebel'480 system with the same advantage of significantly reducing the amount of data that must be transferred, and subsequently reducing the time of transmission (motivation to combine provided by Webb'187, column 10, lines 39-41).

In regards to claims 3-5, 16-18 and 26-28, Lebel'480 discloses that the transporting of signals that contain protocol that insure proper transmission (see for example paragraph 158), data usage protocol for proper usage of data (see for example paragraphs 202, 227 and 298). Examiner takes the position that the teachings of Lebel'480 are inherently capable of performing the limitations of claims 3-5 since at least one protocol is necessarily needed to carry out the transmission of data, and thus the teachings of Lebel'480 anticipate the limitations of claims 3-5. Or in the alternative, Examiner takes the position that it would have been obvious to one having ordinary skill in the art at the time of the invention to modify the teachings of Lebel'480 to include various types of standard protocol as claimed by Applicant, since these types of protocol are standard and well known in the art, as these teachings are admitted prior art by Applicant (see Applicant's Specification paragraph 29).

In regards to claims 13, 14, 23, 24 and 32, Lebel'480 discloses wireless communication by way radio frequency and inductive links (see for example paragraph 155 and 420).

3. Claims 6-12, 19-22 and 29-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Lee (U.S. 2001/0031997, hereinafter Lee'997).

In regards to claims 6-7, 12, 19, 22 and 29, Lee'997 teaches that the interface medical device (116) could be placed outside the patient, which Examiner interprets to also mean that that interface medical device could alternatively be placed inside the patient (see for example paragraph 28), in a position similar to the implanted medical device (112), which are both part of an implantable medical device network system (110). Examiner further takes the position that it would have been obvious to one having ordinary skill in the art to modify the system as taught by Lebel'480 to include in each packet information regarding network routing information and to combine these teachings into a single implanted device, for enhancing data transmission and accessibility, and for increasing implantation feasibility.

In regards to claims 8-9, 20-21, 30-31, Examiner takes the position that it would have also been obvious to one having ordinary skill in the art at the time of the invention to further modify the teachings of Lebel'480 to include network routing information that corresponds to various types of standard protocol as claimed by Applicant, since these types of protocol are standard and well known in the art, as these teachings are admitted prior art by Applicant (see Applicant's Specification paragraph 33).

In regards to claims 10-11, Examiner takes the position that is well known in the art to have data transmitted with a higher priority than other data as deemed necessary; thus it would have been obvious to one having ordinary skill in the art to modify the teachings of Lebel'480 to include priority data transmitted prior to data with less priority, as it is commonly known in the art for enhancing the effectives of diagnosis and treatment of a patients.

4. Claims 33-39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Nappholz et al. (U.S. Patent No. 5,720,770, hereinafter Nappholz'770).

In regards to claims 33-34, 36-37, Lebel'480 teaches of transmitting data from an implantable stimulation device to an external database (32); however Lebel et al. does not specifically teach of the use of repeater for transmitting data between an implanted device and a data network.

Nappholz'770 teaches of a cardiac stimulation system that comprises transferring data between a data network and an implantable pulse generator (see for example col. 2 lines 46-52), a wired connection between the data network and a repeater (see for example col. 2 lines 66-67, col. 4 lines 9-16 and the Abstract), and a wireless connection between the repeater and the implantable pulse generator (see for example col. 4 lines 6-9). Examiner takes the position that Nappholz'770 inherently teaches of the ability to establish a first transport layer between the data network and the repeater and a second transport layer connection between the repeater implantable pulse generator, since this would be required for the transmission of data over both a wired connection and wireless connection respectively. Further, it is inherent in the system as taught by Nappholz'770 that the system is capable of sending data with first transport control header information from the data network to the repeater and further sending the data with second transport control header information from the repeater to the implantable pulse generator.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 to include the teachings of Nappholz'770. Lebel'480 and Nappholz'770 both teach of implantable medical devices that transmit data with an external device, and thus teach of analogous arts. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the system as taught by Lebel'480 to include a repeater for transmitting data between the implantable device and a data network, since it would increase the accessibility to patient data and the implantable device as taught by Nappholz'770 (see for example col. 4 lines 11-23 and col. 6 lines 64-67).

In regards to claim, 35 and 38-39, Examiner takes the position that it is inherent in the both the Lebel'480 and Nappholz'770 systems that a transport control protocol would be necessary to allow proper transmission of data, or in the alternative would an obvious modification to the Lebel et al. reference. Examiner further takes the position that it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a longer re-transmission timeout for the connection between the repeater and the implantable device, than for the data network and the repeater, since it is well known in the art that a transmission over a shorter distance (i.e. close proximity) requires less time than does a transmission over a longer distance (i.e. cellular connection).

Alternatively or additionally, Webb'187 clearly discloses the use of transport layer protocol that meets the limitations of the instant claims.

Response to Arguments

5. Applicant's arguments filed 14 June 2007 have been fully considered but they are not persuasive. Claims 1, 3-5, 13-18, 23-28 and 32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187. Claims 6-12, 19-22 and 29-31 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Lee'997. Claims 33-39 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lebel'480 in view of Webb'187 as applied to claims 1, 3-5, 13-18, 23-28 and 32 above, and further in view of Nappholz'770.

6. Regarding Applicant's argument that Webb'187 contains no disclosure of analyzing transport control data of the header to determine a position sequence of data when the position sequence is different from a receive sequence because a real-time update would require data to be sent sequentially, it is noted that the Applicant is suggesting that real-time data must always inherently be sent sequentially. Such is simply not the case. Additionally, the data sent in Webb'187 is out of sequence for the very fact that only small segments of the full display stream are transmitted since only small segments might contain changes as outlined in Webb'187. Therefore, only a small subset of the full data stream is being transmitted, and therefore is considered to be transmitted out of sequence since transmission in sequence would require a transmission of each and every data package of the display data. If the external system was not provided with detailed information about where the sent data belonged amongst the other available data sets, it would be impossible for it to guess where the sent data

belonged on the display and an inaccurate transmission would result. This is supported in column 10, lines 63-67, which states that the location of each data set is stored in both the local and remote systems to allow partial (i.e. out of sequence, or a position sequence different from the receive sequence) transfer of data to be translated into a complete display. Additionally, column 15 lines 30-50 disclose that the display data can be interlaced with data packets related to control operation of the overall device, which additionally can be considered a disclosure of data transmission requiring that the receiving system be capable of determining the proper position and sequence of incoming data from two very different data sets in order to accurately reconstruct both the image and the control operation information.

7. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reasons to combine provided in the previous Office Action and reiterated herein above are considered sound.

8. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208

USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

9. Regarding Applicant's arguments directed to the Nappholz reference, it is noted that a system employing a repeater to acquire a signal from one system by one communications means and transmit that signal to a second system by a second communications means does inherently require two different transport layers as set forth above. Additionally, it is noted that Webb'187 clearly discloses a protocol that uses transport control information and meets the limitations of the instant claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Flory whose telephone number is (571) 272-6820. The examiner can normally be reached on M - F 8:30 a.m. to 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher A. Flory

9 September 2007

/George Manuel/
Primary Examiner